

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A process for preparing a fluorine-containing polymer, which is a batch copolymerization process conducted under conditions of reduced temperature of at least 0.95 and reduced pressure of at least 0.80 of the critical constant calculated from critical temperature, critical pressure and composition ratio of each monomer in the gaseous phase of the reaction vessel using the Peng-Robinson formula;

wherein when the number of monomer components in the target polymer is represented as n (n is an integer of 2 or larger), the name of each monomer component is represented as A_1, A_2, \dots, A_n , the weight percentage of each monomer component A_1, A_2, \dots, A_n of the target polymer composition is represented as a_1, a_2, \dots, a_n (%) (a satisfies $\sum_n a_n = 100$), the weight percentage of each monomer component of the initial monomer composition is represented as a'_1, a'_2, \dots, a'_n (%) (a' satisfies $\sum_n a'_n = 100$ and a'_1, a'_2, \dots, a'_n is determined in a constant manner depending on predetermined polymerization conditions) and specific gravity of the gaseous phase monomers when polymerizing/specific gravity of the target polymer is represented as B , the composition weight ratio of additional monomers is calculated for each monomer from the formula

$$(a_1 - a'_1 \times B) : (a_2 - a'_2 \times B) \dots (a_n - a'_n \times B)$$

in the order of components $A_1, A_2, \dots A_n$, and additional monomers containing additional monomers in the composition weight ratio of additional monomers are added.

2. (original): The process for preparing a fluorine-containing polymer of Claim 1, wherein the polymerization pressure is at least 4 MPa.

3. (previously presented): The process for preparing a fluorine-containing polymer of Claim 1, wherein said fluorine-containing polymer is a copolymer comprising vinylidene fluoride and hexafluoropropylene; and

the mol ratio of vinylidene fluoride:hexafluoropropylene is 9:1 to 5:5.

4. (original): The process for preparing a fluorine-containing polymer of Claim 1, wherein the polymerization pressure is at least 3 MPa.

5. (original): The process for preparing a fluorine-containing polymer of Claim 4, wherein said fluorine-containing polymer is a copolymer comprising vinylidene fluoride, hexafluoropropylene and tetrafluoroethylene; and
the mol ratio of vinylidene fluoride:hexafluoropropylene is 9:1 to 5:5 and the content of tetrafluoroethylene is at most 40 % by mol.

6. (original): A fluorine-containing polymer composition comprising the fluorine-containing polymer obtained by the process of Claim 1, a curing agent and a vulcanization accelerator.

7. (currently amended): The fluorine-containing polymer composition of Claim 6, wherein said fluorine-containing polymer has Mooney viscosity of at most 15 at 121°C and ~~essentially~~ substantially does not contain iodine and said composition has compression set after vulcanization of at most 25 %.

8. (original): The fluorine-containing polymer composition of Claim 6, wherein weight average molecular weight/number average molecular weight measured by GPC is at most 3.0.

9. (canceled).

10. (canceled).

11. (canceled).

12. (canceled).

13. (canceled).

14. (canceled).

15. (canceled).